



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/694,974	10/28/2003	Lang H. Nguyen	03090	4437

7590 03/30/2005
Robert J. Follett, Esq.
CABOT CORPORATION
Law Department
157 Concord Road
Billerica, MA 01821

EXAMINER

RONESI, VICKEY M

ART UNIT	PAPER NUMBER
----------	--------------

1714

DATE MAILED: 03/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/694,974	NGUYEN, LANG H.	
	Examiner	Art Unit	
	Vickey Ronesi	1714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-40 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.
2. The use of term "in aqueous coating applications" in paragraph 0035 on page 11 is inconsistent with applicant's invention. It is suggested that "in aqueous coating applications" be replaced with the term "in non-aqueous coating applications" so that the disclosure appropriately supports the inventive non-aqueous compositions. Also, in line 2 of paragraph 0026, "an non-aqueous" should be replaced with "a non-aqueous." Applicant is encouraged to review the specification for any other errors.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 12, 13, 23-26, and 31-35 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 23-26 recite the limitation "the organic group" in line 1 of each claim. There is insufficient antecedent basis for this limitation in the claim. In the interest of compact prosecution, the claims have been examined as if they had been dependent on claim 22.

Claims 31-35 recite the limitation "the non-aqueous coating composition" in line 1 of each claim. There is insufficient antecedent basis for this limitation in the claim. In the interest

Art Unit: 1714

of compact prosecution, the claims have been examined as if they had been dependent on claim 30.

Claims 12 and 13 are rendered indefinite because the molecular weights have no basis, i.e., are the molecular weights based on number-average, weight-average, etc? In amending claims, new matter should not be introduced.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-5, 8, 10, 12, 13, and 15-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Golightly et al (GB 2 019 822).

Golightly et al discloses a talc dispersion comprising an organic polyelectrolyte dispersant such as alkali metal salts of polycarboxylic acid (e.g., homo- or copolymers of acrylic acids which are water-soluble) having a weight-average molecular weight less than 100,000 (page 1, lines 17-21) and a wetting agent that is an anionic surface active agent such as olefin sulfonates (e.g., dioctyl sulfosuccinate which is water- insoluble) (page 1, lines 22-29) wherein a

base is used to adjust final pH (page 2, line 1), e.g., sodium hydroxide (page 1, table). The composition may further comprise other inorganic anionic dispersants (page 1, lines 30-34)

In light of the above, it is clear that Golightly et al anticipates the presently cited claims.

5. Claims 6 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Golightly et al (GB 2 019 822) in view of evidence given by Gosset et al (US 4,632,848).

The discussion with respect to Golightly et al in paragraph 4 above is incorporated here by reference.

Golightly et al discloses the use of Empimin OT, which is described as an active di-octyl sulfosuccinate as the wetting agent in its composition.

Golightly et al does not explicitly disclose the counterion in the active dioctyl sulfosuccinate, nevertheless, it is the examiner's position that it is inherent that Empimin OT is a sodium salt.

Evidence to support the examiner's position is found in Gosset et al which teaches that Empimin OT is sodium dioctyl sulfosuccinate (col. 9, lines 54-56).

In light of the above, it is clear that Golightly et al in view of evidence given by Gosset et al anticipates the presently cited claims.

6. Claims 21, 27, and 28 are rejected under 35 U.S.C. 102(b) as being anticipated by Golightly et al (GB 2 019 822) in view of evidence given by Wypych (*Handbook of Fillers*).

The discussion with respect to Golightly et al in paragraph 4 above is incorporated here by reference.

The composition of Golightly et al is used to disperse talc for use in coating materials in the paper coating industry (page 1, lines 3-4).

Although Golightly et al does not teach the talc is used as a pigment, Wypych teaches on page 11 that talc is considered to be a pigment in the paper industry.

In light of the above, it is clear that Golightly et al in view of evidence given by Wypych anticipates the presently cited claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Golightly et al (GB 2 019 822) in view of Bouvy et al (US 6,582,505).

The discussion with respect to Golightly et al in paragraph 4 above is incorporated here by reference.

Golightly et al does not disclose the use of an ammonia base in its composition, nonetheless, it teaches the use of a base to control the pH level (page 2, line 1).

A well known base with which to adjust pH is ammonia. Evidence to support examiner's position is found in Bouvy et al which teaches that ammonia is used to adjust pH in an aqueous pigment dispersion (col. 5, line 1).

Art Unit: 1714

Given that Golightly et al is open to any base and given that ammonia is a known base, it would have been obvious to one of ordinary skill in the art to utilize ammonia as the base in Golightly et al and thereby arrive at the presently cited claim.

8. Claims 1-3, 8-11, 15-17, 21-28, and 30-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nyssen (WO 00/60015).

It is noted that the international Patent Application WO publication is being utilized for date purposes. However, since WO 00/60015 is in German, in the discussion below, the US equivalent for WO 00/60015, namely US 6,818,050 is referred to in the body of the rejection below. All column and line citations are to the US equivalent.

Nyssen discloses paint and coating material system comprising a dispersant such as anionic dispersants (e.g., sulfosuccinic esters, alkylbenzenesulfonates, salts of polyacrylic acids and of copolymers of acrylic acid and methacrylate) (col. 5, line 39 to col. 6, line 14); a pigment such as surface-modified carbon blacks (e.g., sulfo- or carboxyl-containing carbon blacks) (col. 3, lines 43-47); binder such as polyesters, alkyd resins, acrylic resins, and epoxy resins (col. 9, line 7 to col. 10, line 5); water (col. 11, lines 1-8); solvent such as aliphatic or aromatic hydrocarbons, glycol and polyglycol ethers, esters, and ketones (col. 10, lines 45-47).

It is noted that although applicant's claims are drawn to a non-aqueous coating composition and the prior art of Nyssen is drawn to an aqueous composition, it will be noted that applicant's specification discloses that its non-aqueous solvent may include 0-20 % water (paragraph 0038) and Nyssen discloses that its composition comprises 4.9-98.9 wt % water (col.

Art Unit: 1714

11, line 6) and solvents in an amount less than 55 wt % (col. 10, line 60). Nyssen is therefore pertinent and relevant prior art.

Nyssen does not explicitly disclose the combined use of anionic surfactants such as a salt of a sulfonate group and a polymer comprising a least one salt of a carboxylic acid group, nevertheless, it is the examiner's position that it would have been obvious to one of ordinary skill in the art to utilize two ingredients which are known to produce the same effect. Case law holds that it is *prima facie* obvious to combine two ingredients, each of which is targeted by the prior art to be useful for the same purpose. *In re Lindner* 457 F, 2d 506,509, 173 USPQ 356, 359 (CCPA 1972). Applicant's allegation of unexpected results is acknowledged, however, the examples given do not support unexpected results. In particular, the examples are not proper side-by-side examples since it is not made known how exactly the pigment of the inventive examples differs from the comparative examples. In particular, it is not even made clear if the comparative pigments were even subject to a dispersant and, if so, what kind. Moreover, a significant improvement in properties has not been clearly established since no statistical measurements have been given and therefore it is not possible to gauge, for example, whether (with respect to M_c value) 313 (Ex. 4) is indeed considerably higher than 307 (Comp. 7).

With respect to the salt associated with the salts of copolymers of acrylic acid, Nyssen is silent. Nonetheless, it is the examiner's position that it is well known in the art to commonly utilize alkali metal and ammonium salts (note col. 4, lines 38-39 of Nyssen for evidence). Therefore, it would have been well within the capabilities of one of ordinary skill in the art to utilize such a salt as ammonium with the acrylic acid copolymers of Nyssen and thereby arrive at the presently cited claims.

Art Unit: 1714

9. Claims 4-7, 14, 29, and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nyssen (WO 00/60015) in view of Batdorf (US 5,268,203).

The discussion with respect to Nyssen in paragraph 8 above is incorporated here by reference.

Although Nyssen discloses the use of sulfosuccinic esters as one of the anionic dispersant, it does not explicitly teach the use of an alkylsulfonate group, in particular, sodium dioctyl sulfosuccinate.

Batdorf teaches that a commercially available and well known anionic surfactant (i.e., dispersant) is sodium dioctyl sulfosuccinate (col. 10, lines 55-62).

Given that Nyssen generically teaches the use of a sulfosuccinate dispersant and given that a well known and commercially available sulfosuccinate dispersant is sodium dioctyl sulfosuccinate, it would have been obvious to one of ordinary skill in the art to utilize the sodium dioctyl sulfosuccinate and thereby arrive at the presently cited claims.

Correspondence

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vickey Ronesi whose telephone number is (571) 272-2701. The examiner can normally be reached on Monday - Friday, 8:30 a.m. - 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1714

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

3/24/2005

vr



Vasu Jagannathan
VASU JAGANNATHAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700